

Notice of Allowability

Application No.

10/620,644

Examiner

Ling-Siu Choi

Applicant(s)

MATHER ET AL.

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed 07/12/2004.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☒ The drawings filed on 16 July 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

1. This Office Action is in response to the Amendment filed July 12, 2004. Claims 1-21 are now pending.

Examiner's Amendment

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CAR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. J. Michael Buchanan on September 17, 2004.

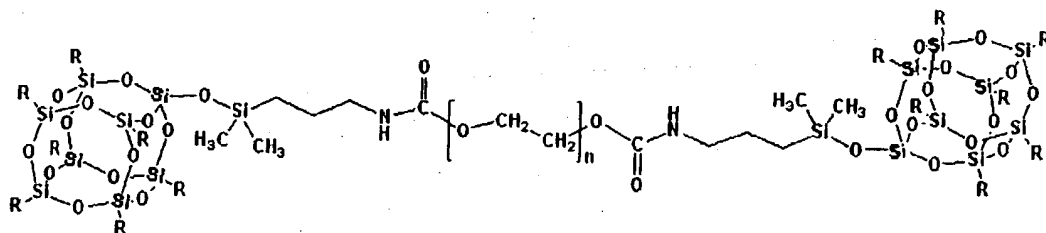
3. The application has been amended as follows:

Cancel claims 20-21;

Amend the following claims,

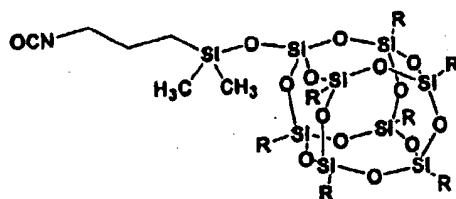
- 6. (currently amended) A method for forming amphiphilic telechelics incorporating POSS which comprises reacting polyethylene glycol homopolymer and POSS macromer, wherein the monoisocyanate groups of two of said POSS macromers are directly linked to the diol end groups of said polyethylene glycol homopolymer, and wherein the amphiphilic telechelic incorporating POSS has the structure

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wherein R is an unreactive aliphatic or aryl group and n is 1 to 23,000. --

--10. (currently amended) A method according to claim 6 wherein said POSS macromer has the formula



wherein R is selected from the group of cyclohexyl, cyclopentyl, cyclooctyl, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, styryl, vinyl, allyl, ethylphenyl, phenyl, biphenyl, and naphthyl.—

Claim 11, line 2; **claim 12**, line 3, change "isocyanatodimethylsilylcyclohexyl-POSS" to -- isocyanatopropyldimethylsilyloxycyclohexyl-POSS--.

Allowable Subject Matter

4. Claims 1-19 are allowed.

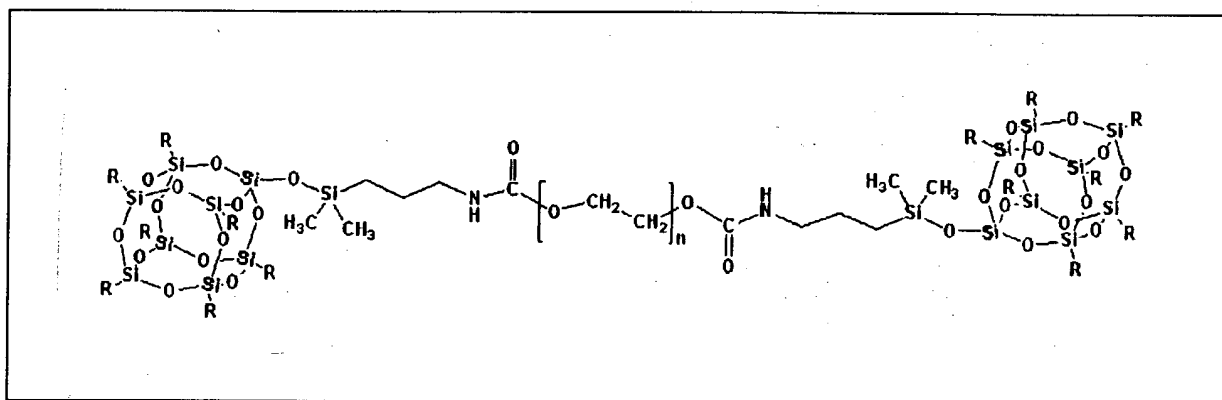
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5. The following is an examiner's statement of reasons for allowance:

The present claims are allowable over the closest reference: Vorobyova et al.

[Macromolecules, 31, 8998-9007 (1998)].

The present invention relates to an amphiphilic telechelic comprising POSS having the following structure



(summary of claim 1)

Vorobyova et al. disclose a linear poly(ethylene oxide) which is end-capped at both ends with hexadecyl alkyl chains through reaction with hexadecyl isocyanate, wherein the linear poly(ethylene oxide) has a molecular weight of 35,000 (page 8999, col. 1). However, Vorobyova et al. do not teach or fairly suggest an amphiphilic telechelic incorporating POSS.

In light of the above discussion, it is evident as to why the present claims are patentable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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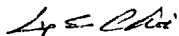
accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098. The examiner can normally be reached on Monday to Friday.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LING-SUI CHOI
PRIMARY EXAMINER

Ling-Siu Choi, Ph.D.

September 27, 2004